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			2475	
			NOTIFICATION DATE	DELIVERY MODE
			05/19/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary		Application No.	Applicant(s)				
		09/804,621	WILLENEGGER ET AL.				
		Examiner	Art Unit				
		ROBERT W. WILSON	2475				
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover sheet with the c	orrespondence address				
WHIC - Exter after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. Poperiod for reply is specified above, the maximum statutory period ver to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin vill apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status							
1)	Responsive to communication(s) filed on <u>04 M</u>	arch 2010					
•		action is non-final.					
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
٥/ا	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Dispositi	on of Claims						
4)⊠	Claim(s) 14 and 17-29 is/are pending in the ap	plication.					
·—	4a) Of the above claim(s) is/are withdrawn from consideration.						
	5) Claim(s) is/are allowed.						
	6)⊠ Claim(s) <u>14 and 17-29</u> is/are rejected.						
· ·	Claim(s) is/are objected to.						
-	Claim(s) are subject to restriction and/o	r election requirement.					
	ion Papers	·					
9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
10)							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
	ınder 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 							
2) Notice (3) Inform	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	nte				

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Claim Rejections - 35 USC § 103

1. Claims 14 & 17-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Walton (U.S. Patent No: 5,621,723) further in view of Bae (U.S. Patent No.: 5,832,387) which is

an IDS document of record further in view of Raith (U.S. Patent No.: 5,930,706)

Referring to claim 14, Walton teaches: a method in an apparatus (method perform in Base Station per col. 3 line 16 to col. 4 line 45 and col. 6 line 45 to col. 7 line 20.)

Receiving by the apparatus from a single remote station a reverse link signal that comprises a plurality of subchannel signals (Based upon data rate the mobiles are assigned either a specific channel or channel set which the examiner has interpreted as a plurality of subchannels per col. 3 line 16 to col. 4 line 45. The base station or apparatus receives from a mobile station or single remote station a channel set or plurality of subchannels over a reverse packet data channel or reverse link signal per col. 3 line 16 to col. 4 line 45)

Comparing the power in subchannels with a threshold (The base station compares the power in a channel set or subchannels associated with a first mobile station as well as the channel set associated with a second mobile station to threshold associated with each mobile station in order to generate a power control bits for each mobile station per col. 6 line 45 to col. 7 line 21)

Generating power control message based on the comparison to be used to independently adjust transmit power of more than one of the plurality of subchannel signal to different levels (The channel set associated each mobile station receives a power control bits which are inserted into an appropriate power control subchannel for each mobile station per col. 6 line 45 to col. 7 line 21

Walton does not expressly call for: independently adjusting or Frame Error Rate

Bae teaches: independently adjusting more than one subchannel (The combination of 704, 706, 710 and 712 receive plurality of subchannel measurement relative to SNR and send message for each subchannel which adjust the power of each subchannel separately or independently via 712 per Fig 8 and per col. 4 lines 15 to col. 6 line 45)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add independently adjusting of Bae in place adjusting the subchannels of Walton in order to build a system in which the power associated with channel sets can be adjusted independently which will result in less interference and improve performance.

The combination of Walton and Cooper do not expressly call for: frame error rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

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It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton and Bae because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

Referring to claim 17, the combination of Walton, Bae, and Raith teach: the method as recited in claim 14 and Walton further comprising generating a plurality of quality threshold values corresponding to the plurality of subchannel in accordance with the measured signal power for each of the subchannel signals (threshold is generated for each data rate and data rate corresponds to each channel or subchannel per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20

Walton and Bae do not expressly call for: Frame Error Rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton, Bae, and Raith because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

In addition Walton teaches:

Regarding claim 18, further comprising wherein said generating includes generating at least a plurality of bits, wherein each bit represents a command to increate or decrease the transmit power of one of said subchannel signals by a predetermined amount (The inherent bits in the power control message can adjust the power in 1dB step size or predetermined amount per col. 6 lines 46 to 67)

Regarding claim 19, generating a plurality of gain values and applying each gain value to one of said plurality of signal to adjust the transmit power of said subchannel signals (plurality of bits wherein each bit inherently corresponds to a command to increase or decrease the transmit of the transmit power of one of the subchannels by a predetermined amount col. 6 lines 45 to 67.

Referring to claim 20, the combination of Walton, Bae, and Raith teach: the method as recited in claim 14 and Walton teaches: further comprising decoding each of said corresponding subchannel signals and determining frame error in said subchannel signals (The base station has inherent decoder for decoding corresponding subchannels and determining the signals power per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20)

Walton and Bae do not expressly call for: Frame Error Rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton, Raith, and Cooper because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

Referring to claim 21, Walton teaches: An apparatus for wireless communication (Base Station per col. 6 line 45 to col. 7 lines 20) comprising:

A receiver configured to receive from a single remote station a reverse link signal that comprises a plurality of subchannel signals (Based upon data rate mobiles are assigned either a specific channel or channel set which the examiner has interpreted as a plurality of subchannels associated with a single remote station per col. 3 line 16 to col. 4 line 45. The base station has an inherent receiver per col. 6 lines 50 to 56 which receives from a mobile station or single remote station a channel set or plurality of subchannels from one base station and another channel set from another mobile over a reverse packet data channel or reverse link signal per col. 3 line 16 to col. 4 line 45)

A threshold generator configured to provide a power threshold for at least one of the subchannels (The base station generates a threshold for measuring the power from a subchannel per col. 3 line 15 to col. 4 line 45 and per col. 6 line 46 to col. 67 line 20)

A comparator configured to compare a power of at least one of the subchannel with a threshold for that subchannel signal (The base station has an inherent comparator which compares the power in a channel set or subchannels associated with a first mobile station as well as the channel associated with a second mobile station to threshold associated with each mobile station in order to generate a power control bits for each mobile station per col. 6 line 45 to col. 7 line 21)

A message generator configured to generate power control message based on the comparison to b used to adjust transmit power of one or more of the plurality of subchannel signals by to different levels (The base station has an inherent power control bit generator or message generator. A separate power control subchannel contains the power control bits which are associated with the appropriate channel set for a specific mobile station which are used to control the power level at the mobile station per col. 6 line 45 to col. 7 line 21)

Walton does not expressly call for: independently adjusting more than one subchannel or Frame Error Rate

Bae teaches: independently adjusting more than one subchannel (The combination of 704, 706, 710 and 712 receive plurality of subchannel measurement relative to SNR and send message for

each subchannel which adjust the power of each subchannel separately or independently via 712 per Fig 8 and per col. 4 lines 15 to col. 6 line 45)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add independently adjusting of Bae in place of adjusting the subchannels Walton in order to build a system in which the power associated with channel sets can be adjusted independently which will result in less interference and improve performance.

The combination of Walton and Cooper do not expressly call for: frame error rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton and Bae because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

Referring to claim 22, the combination of Walton, Bae, Raith teach: the apparatus for wireless communication and Walton teaches a message generator is configured to generate a plurality of quality threshold values corresponding to the plurality of subchannel in accordance with a measured signal power for each subchannel (threshold is generated for each data rate and data rate corresponds to each channel or subchannel per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20

Walton and Bae does not expressly call for: Frame Error Rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton, Bae, and Raith because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

In addition Walton teaches:

Regarding claim 23, wherein the message generator is configured to generate at least a plurality of bits wherein each bit inherently corresponds to a command to increase or decrease the transmit of the transmit power of one of the subchannels by a predetermined amount (The inherent bits in the power control message can adjust the power in 1dB step size or predetermined amount per col. 6 lines 46 to 67)

Referring to claim 24, the combination of Walton, Bae, and Raith teach: the apparatus for wireless communication of claim 21, Walton teaches: further comprising a decoder configured

to decode each of the subchannel signal from the received reverse link signal and wherein the comparator is configured to calculate the power in each of the subchannels (The base station has inherent decoder to decode the received reverse link signals per col. 6 lines 45 to 67 and a comparator is configured to calculated the reverse link received power on each subchannel per col. 6 lines 45 to 67

Walton and Bae do not expressly call for: Frame Error Rate

Raith teaches: Frame Error Rate (Frame Error Rate can be substituted for power measurement or channel quality measurement

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton, Bae, and Raith because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

Referring to claim 25, Walton teaches: An apparatus for wireless communication (Base Station per col. 6 line 45 to col. 7 lines 20) comprising:

Receiving by the apparatus from a single remote station a reverse link signal that comprises a plurality of subchannel signals (Based upon data rate the mobiles are assigned either a specific channel or channel set which the examiner has interpreted as a plurality of subchannels per col. 3 line 16 to col. 4 line 45. The base station or apparatus receives from a mobile station or single remote station a channel set or plurality of subchannels over a reverse packet data channel or reverse link signal per col. 3 line 16 to col. 4 line 45)

Providing a power threshold for at least one of the subchannel signals (The base station compares the power in a channel set or subchannels associated with a first mobile station as well as the channel set associated with a second mobile station to threshold associated with each mobile station in order to generate a power control bits for each mobile station per col. 6 line 45 to col. 7 line 21)

Comparing the power in subchannels with a threshold of subchannel signals (The base station compares the power in a channel set or subchannels associated with a first mobile station as well as the channel set associated with a second mobile station to threshold associated with each mobile station in order to generate a power control bits for each mobile station per col. 6 line 45 to col. 7 line 21)

Generating power control message based on the comparison to be used to independently adjust transmit power of more than one of the plurality of subchannel signal to different levels (The channel set associated each mobile station receives a power control bits which are inserted into an appropriate power control subchannel for each mobile station per col. 6 line 45 to col. 7 line

Walton does not expressly call for: means for receiving, means for providing, means for comparing, means for generating or independently adjusting or Frame Error Rate

Bae teaches: means for receiving (704 per Fig 8), means for providing (172 per Fig 8), means for comparing (712 per Fig 8), and means for generating (712 per fig 8) and independently adjusting more than one subchannel (The combination of 704, 706, 710 and 712 receive plurality of subchannel measurement relative to SNR and send message for each subchannel which adjust the power of each subchannel separately or independently via 712 per Fig 8 and per col. 4 lines 15 to col. 6 line 45)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add means for and independently adjusting of Bae in place of method of Walton because a means is required to implement a method. It would have been obvious to one of ordinary skill in the art at the time of the invention to add independently adjusting of Bae to the adjusting of subchannels of Walton in order to build a system in which the power associated with channel sets can be adjusted independently which will result in less interference and improve performance.

The combination of Walton and Bae do not expressly call for: frame error rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton and Bae because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

Referring to claim 26, the combination of Walton, Raith, and Bae teach: the apparatus for wireless communication of claim 25 and Walton further comprising means for generating a plurality of quality threshold values corresponding to the plurality of subchannel in accordance with the measured signal power for each of the subchannel signals (threshold is generated for each data rate or means and data rate corresponds to each channel or subchannel per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20

Walton and Bae do not expressly call for: Frame Error Rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton, Bae, and Raith because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel.

In addition Walton teaches:

Regarding claim 27, further comprising means for generating at least a plurality of bits, wherein each bit represents a command to increate or decrease the transmit power of one of said subchannel signals by a predetermined amount (bits in the power control message can adjust the power in 1dB step size or predetermined amount or means for generating per col. 6 lines 46 to 67)

Referring to claim 28, the combination of Walton, Bae, and Raith teach: the apparatus for wireless communication of claim 25 and Walton teaches: further comprising means for decoding each of said corresponding subchannel signals and determining frame error in said subchannel signals (The base station has inherent decoder for decoding corresponding subchannels and determining the signals power per col. 3 line 16 to col. 4 line 45 and per col. 6 line 46 to col. 7 line 20)

Walton and Bae do not expressly call for: Frame Error Rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton, Bae, and Raith because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

Referring to claim 29, Walton teaches: A Base station (Base Station per col. 6 line 45 to col. 7 lines 20) comprising

An antenna (Base Station per Figures 1 and Figures 2 has inherent antenna)

A receiver configured to receive from a single remote station a reverse link signal that comprises a plurality of subchannel signals (Based upon data rate the mobiles are assigned either a specific channel or channel set which the examiner has interpreted as a plurality of subchannels per col. 3 line 16 to col. 4 line 45. The base station or apparatus receives from a mobile station or single remote station a channel set or plurality of subchannels over a reverse packet data channel or reverse link signal per col. 3 line 16 to col. 4 line 4. The base station has an inherent receiver which receives a reverse link signal which comprises a channel set which is associated with a data rate or subchannels from a single mobile or single remote station per col. 3 line 15 to col. 4 line 45 and per col. 6 line 46 to col. 67 line 20.)

A threshold generator configured to provide a power threshold for at least one of the subchannels (The base station generates a threshold for measuring the power from a subchannel per col. 3 line 15 to col. 4 line 45 and per col. 6 line 46 to col. 67 line 20)

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A comparator configured to compare a power of at least one of the subchannel with a threshold for that subchannel signal (The base station has an inherent comparator which compares the power in a channel set or subchannels associated with a first mobile station as well as the channel associated with a second mobile station to threshold associated with each mobile station in order to generate a power control bits for each mobile station per col. 6 line 45 to col. 7 line 21)

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A message generator configured to generate power control message based on the comparison to b used to adjust transmit power of one or more of the plurality of subchannel signals by to different levels (The base station has an inherent power control bit generator or message generator. A separate power control subchannel contains the power control bits which are associated with the appropriate channel set for a specific mobile station which are used to control the power level at the mobile station per col. 6 line 45 to col. 7 line 21)

Walton does not expressly call for: independently adjusting or Frame Error Rate

Bae teaches: independently adjusting (The combination of 704, 706, 710 and 712 receive plurality of subchannel measurement relative to SNR and send message for each subchannel which adjust the power of each subchannel separately or independently via 712 per Fig 8 and per col. 4 lines 15 to col. 6 line 45)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add independently adjusting of Bae subchannels of Walton in order to build a system in which the power associated with channel sets can be adjusted independently which will result in less interference and improve performance.

The combination of Walton and Cooper do not expressly call for: frame error rate

Raith teaches frame error rate can be substituted in place of received signal strength (RSS) per col. 18 lines 28 to 49.

It would have been obvious to one of ordinary skill in the art at the time of the invention add FER of Raith in place of measuring signal power of Walton and Bae because both FER and signal power are quality measurements which can be utilized to determine the deterioration of a channel

Response to Amendment

2. Applicant's arguments filed 3/4/10 have been fully considered but they are not persuasive.

Relative to claims 1 and 14, the examiner respectfully disagrees with the applicant argument that Walton does not disclose or suggest: receiving from a single remote station a reverse link signal that comprises a plurality of subchannel

Walton teaches: receiving from a single remote station a reverse link signal that comprises a plurality of subchannel (Based upon data rate the mobiles are assigned either a specific channel or channel set which the examiner has interpreted as a plurality of subchannels per col. 3 line 16 to col. 4 line 45. The base station or apparatus receives from a mobile station or single remote station a channel set or plurality of subchannels over a reverse packet data channel or reverse link signal per col. 3 line 16 to col. 4 line 45)

The examiner respectfully disagrees with the applicant's argument that channel set does not to a plurality of subchannels. One of ordinary skill in the art would realize that Walton teaches that one of eight channels can be used independently on up to eight mobile stations or combination of channels can be combined for a specific data rate as a plurality of subchannels per col. 3 line 16 to col. 4 line 45 and col. 6 line 45 to col. 7 line 20.

The examiner respectfully disagrees with the applicant argument that Walton does not disclose or suggest that the receiving element of the base station receives from a single mobile station a reverse link signal comprising multiple channels

Walton teaches: the receiving element of the base station receives from a single mobile station a reverse link signal comprising multiple channels (Based upon data rate the mobiles are assigned either a specific channel or channel set which the examiner has interpreted as a plurality of subchannels per col. 3 line 16 to col. 4 line 45. The base station or apparatus receives from a mobile station or single remote station a channel set or plurality of subchannels over a reverse packet data channel or reverse link signal per col. 3 line 16 to col. 4 line 45)

The applicant goes on to argue that because the base is assigned a specific code and the channels cannot be delineated. The examiner asserts that Walton that a code is assigned to mobile station channel set and that the base station can send a power control message to one mobile separately from another mobile and thereby adjust power associated with channel sets per col. 3 line 16 to col. 4 line 45 and col. 6 line 45 to col. 7 line 20.)

The examiner disagrees with the applicant argument that the reference Bae or Raith need to remedy that Walton does not teach: receiving a reverse link signal from a single remote that that comprises a plurality of subchannels because Walton teaches this limitation as explained above.

The examiner respectfully disagrees with the applicant argument that the combination of references do not teach: independently adjusting transmit power of more than one of the plurality of subchannels of the reverse link signal to different levels.

Walton teaches: Receiving by the apparatus from a single remote station a reverse link signal that comprises a plurality of subchannel signals (Based upon data rate the mobiles are assigned either a specific channel or channel set which the examiner has interpreted as a plurality of subchannels per col. 3 line 16 to col. 4 line 45. The base station or apparatus receives from a

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mobile station or single remote station a channel set or plurality of subchannels over a reverse packet data channel or reverse link signal per col. 3 line 16 to col. 4 line 45)

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Comparing the power in subchannels with a threshold (The base station compares the power in a channel set or subchannels associated with a first mobile station as well as the channel set associated with a second mobile station to threshold associated with each mobile station in order to generate a power control bits for each mobile station per col. 6 line 45 to col. 7 line 21)

Generating power control message based on the comparison to be used to independently adjust transmit power of more than one of the plurality of subchannel signal to different levels (The channel set associated each mobile station receives a power control bits which are inserted into an appropriate power control subchannel for each mobile station per col. 6 line 45 to col. 7 line 21

Walton does not expressly call for: independently adjusting or Frame Error Rate

Bae teaches: independently adjusting more than one subchannel (The combination of 704, 706, 710 and 712 receive plurality of subchannel measurement relative to SNR and send message for each subchannel which adjust the power of each subchannel separately or independently via 712 per Fig 8 and per col. 4 lines 15 to col. 6 line 45)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add independently adjusting of Bae in place adjusting the subchannels of Walton in order to build a system which has a channel which has multiple channels which can intercommunicate with the base station and improved the performance

The examiner respectfully disagrees that applicant argue that because Bae is allocated power to different subchannel in a different manner is relevant because examiner is only bringing in the concept of independent adjustment.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT W. WILSON whose telephone number is (571)272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571/272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert W Wilson/ Primary Examiner, Art Unit 2475

RWW 5/11/10